Application No. 10/802,834
Attorney Docket No. 03-074692 (YAN.042)

AMENDMENTS TO THE CLAIMS:

1. (Withdrawn) A mobile communication system wherein

a mobile station repeatedly transmits a predetermined preamble to a base station prior to transmitting a message to the base station until the mobile station receives an indication signal indicating that transmitting of the message is permitted or refused, and

the base station, when detecting the preamble from the mobile station, transmits the indication signal to the mobile station;

the mobile communication system comprising determination means for determining whether receiving of the indication signal by the mobile station is enabled or disabled based on detection information on the preamble detected by the base station.

2. (Withdrawn) The mobile communication system according to claim 1, wherein

the message is an RACH (random access channel) message;

the preamble is an RACH preamble, and

the indication signal is an AICH (acquisition indicator channel).

3. (Withdrawn) The mobile communication system according to claim 1, wherein the detection information on the preamble detected by the base station includes at least one of the detection position and the reception power for the preamble.

4. (Withdrawn) The mobile communication system according to claim 1, wherein the

determination means determines whether receiving of the indication signal by the mobile station is enabled or disabled by comparing the detection information on the preamble detected by the base station with detection information on a preamble detected previously.

5. (Withdrawn) The mobile communication system according to claim 1, wherein the determination means outputs an abnormality signal if determining that receiving of the indication signal by the mobile station is disabled,

the mobile communication system further comprising control means for causing transmit power for the indication signal to be increased in response to receiving the abnormality signal.

6. (Withdrawn) The mobile communication system according to claim 5, wherein the control means outputs an alarm signal if receiving the abnormality signal again from the determination means after causing the transmit power for the indication signal to be increased.

7. (Withdrawn) The mobile communication system according to claim 6, wherein the control means causes the transmit power for the indication signal to be increased without outputting the alarm signal if receiving the abnormality signal again from the determination means after the elapse of a predetermined time after causing the transmit power for the indication signal to be increased.

8. (Withdrawn) The mobile communication system according to claim 5, wherein the determination means outputs the abnormality signal if the number of mobile stations for which receiving of the indication signal is determined to be disabled is equal to or above a predetermined threshold, or if the total of this number and the number of mobile stations for which receiving of the indication signal has been determined to be disabled previously is equal to or above the predetermined threshold.

9. (Withdrawn) An operation control method for a mobile communication system wherein

a mobile station repeatedly transmits a predetermined preamble to a base station prior to transmitting a message to the base station until the mobile station receives an indication signal indicating that transmitting of the message is permitted or refused, and

the base station, when detecting the preamble from the mobile station, transmits the indication signal to the mobile station;

the operation control method comprising a determination step of determining whether receiving of the indication signal by the mobile station is enabled or disabled based on detection information on the preamble detected by the base station.

10. (Withdrawn) The operation control method according to claim 9, wherein

the message is an RACH (random access channel) message;

the preamble is an RACH preamble, and

the indication signal is an AICH (acquisition indicator channel).

11. (Withdrawn) The operation control method according to claim 9, wherein the detection information on the preamble detected by the base station includes at least one of the detection position and the reception power for the preamble.

12. (Withdrawn) The operation control method according to claim 9, wherein the determination step determines whether receiving of the indication signal by the mobile station is enabled or disabled by comparing the detection information on the preamble detected by the base station with detection information on a preamble detected previously.

13. (Withdrawn) The operation control method according to claim 9, further comprising a control step of causing transmit power for the indication signal to be increased if it is determined at the determination step that receiving of the indication signal is disabled.

14. (Withdrawn) The operation control method according to claim 13, further comprising a step of outputting an alarm signal if it is determined at the determination step again that receiving of the indication signal is disabled after the transmit power for the indication signal is increased at the control step.

15. (Withdrawn) The operation control method according to claim 14, wherein the alarm signal is not outputted but the transmit power for the indication signal is caused to be increased if receiving of the indication signal is again determined to be disabled at the

determination step after the elapse of a predetermined time after the transmit power for the indication signal is increased at the control step.

16. (Withdrawn) The operation control method according to claim 13, wherein the control step causes the transmit power for the indication signal to be increased if the number of mobile stations for which receiving of the indication signal is determined to be disabled at the determination step is equal to or above a predetermined threshold, or if the total of this number and the number of mobile stations for which receiving of the indication signal has been determined to be disabled previously is equal to or above the predetermined threshold.

17. (Previously Presented) A radio base station apparatus in a mobile communication system wherein a mobile station repeatedly transmits a predetermined preamble to the radio base station apparatus prior to transmitting a message to the radio base station apparatus until the mobile station receives an indication signal indicating that transmitting of the message is permitted or refused, said radio base station apparatus comprising:

a transmitter such that the radio base station apparatus transmits the indication signal to the mobile station;

detection means for detecting the preamble; and

determination means for determining whether a receiving of the indication signal by the mobile station is enabled or disabled, said determination being based on detection information on the detected preamble,

wherein the radio base station apparatus transmits the indication signal to the mobile

station when the radio base station apparatus detects the preamble from the mobile station.

18. (Previously Presented) The radio base station apparatus according to claim 17, wherein:

the message comprises an RACH (random access channel) message,

the preamble comprises an RACH preamble, and

the indication signal comprises an AICH (acquisition indicator channel).

19. (Currently Amended) The radio base station apparatus according to claim 17, wherein the detection information on the preamble detected by the radio base station apparatus includes at least one of ~~the~~a detection position and ~~the~~a reception power for the preamble.

20. (Original) The radio base station apparatus according to claim 17, wherein the determination means determines whether receiving of the indication signal by the mobile station is enabled or disabled by comparing the detection information on the detected preamble with detection information on a preamble detected previously.

21. (Original) The radio base station apparatus according to claim 17, wherein

the determination means outputs an abnormality signal if determining that receiving of the indication signal is disabled,

the radio base station apparatus further comprising control means for causing transmit

power for the indication signal to be increased in response to receiving the abnormality signal.

22. (Original) The radio base station apparatus according to claim 21, wherein the control means outputs an alarm signal if receiving the abnormality signal again from the determination means after causing the transmit power for the indication signal to be increased.

23. (Currently Amended) The radio base station apparatus according to claim 22, wherein the control means causes the transmit power for the indication signal to be increased without outputting the alarm signal if receiving the abnormality signal again from the determination means after ~~th~~an elapse of a predetermined time after causing the transmit power for the indication signal to be increased.

24. (Currently Amended) The radio base station apparatus according to claim 21, wherein the determination means outputs the abnormality signal if ~~th~~a number of mobile stations for which receiving of the indication signal is determined to be disabled is equal to or above a predetermined threshold, or if the total of this number and the number of mobile stations for which receiving of the indication signal has been determined to be disabled previously is equal to or above the predetermined threshold.

25. (Currently Amended) An operation control method for a radio base station apparatus

in a mobile communication system wherein a mobile station repeatedly transmits a predetermined preamble to a radio base station apparatus prior to transmitting a message to the radio base station apparatus until the mobile station receives an indication signal indicating that transmitting of the message is permitted or refused, said method comprising:

the radio base station detecting the preamble from the mobile station;

the radio base station apparatus transmitting the indication signal to the mobile station when the radio base station apparatus detects the preamble from the mobile station; and

the radio base station determining whether a receiving of the indication signal by the mobile station is enabled or disabled based on detection information on the detected preamble,

wherein a further action by the base station varies according to a result of the determining ~~step~~ step, said further action comprising at least one of a control step of causing transmit power for the indication signal to be increased and a step of outputting an alarm signal.

26. (Previously Presented) The operation control method according to claim 25, wherein:

the message comprises an RACH (random access channel) message,

the preamble comprises an RACH preamble, and

the indication signal comprises an AICH (acquisition indicator channel).

27. (Currently Amended) The operation control method according to claim 25, wherein the detection information on the preamble detected by the radio base station apparatus

includes at least one of ~~the~~a detection position and ~~the~~a reception power for the preamble.

28. (Original) The operation control method according to claim 25, wherein the determination step determines whether receiving of the indication signal by the mobile station is enabled or disabled by comparing the detection information on the detected preamble with detection information on a preamble detected previously.

29. (Original) The operation control method according to claim 25, further comprising a control step of causing transmit power for the indication signal to be increased if it is determined at the determination step that receiving of the indication signal is disabled.

30. (Original) The operation control method according to claim 29, further comprising a step of outputting an alarm signal if it is determined at the determination step again that receiving of the indication signal is disabled after the transmit power for the indication signal is increased at the control step.

31. (Original) The operation control method according to claim 30, wherein the alarm signal is not outputted but the transmit power for the indication signal is caused to be increased if receiving of the indication signal is again determined to be disabled at the determination step after the elapse of a predetermined time after the transmit power for the indication signal is increased at the control step.

32. (Currently Amended) The operation control method according to claim 29, wherein the control step causes the transmit power for the indication signal to be increased if ~~the~~ a number of mobile stations for which receiving of the indication signal is determined to be disabled at the determination step is equal to or above a predetermined threshold, or if ~~the~~ a total of this number and the number of mobile stations for which receiving of the indication signal has been determined to be disabled previously is equal to or above the predetermined threshold.

33. (Currently Amended) A machine-readable recording medium on which is recorded a program for causing a computer to perform an operation control method for a radio base station apparatus in a mobile communication system wherein a mobile station repeatedly transmits a predetermined preamble to a radio base station apparatus prior to transmitting a message to the radio base station apparatus until the mobile station receives an indication signal indicating that transmitting of the message is permitted or refused, said method comprising:

transmitting the indication signal to the mobile station when the radio base station apparatus detects the preamble from the mobile station;

determining whether a receiving of the indication signal by the mobile station is enabled or disabled based on detection information on the detected preamble; and

controlling a further action by the base station according to a result of the determining ~~step.~~step, said further action comprising at least one of a control step of causing transmit power for the indication signal to be increased and a step of outputting an alarm signal.

34. (Previously Presented) The machine-readable recording medium on which is recorded a program according to claim 33, wherein:

the message comprises an RACH (random access channel) message,

the preamble comprises an RACH preamble, and

the indication signal comprises an AICH (acquisition indicator channel).